THE FARMER & GARDENER.

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, SINCLAIR & MOORE, AND ROBERT SINCLAIR, JR.—EDITED BY E. P. ROBERTS.

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American Farmer Establishment.

BALTIMORE: TUESDAY, DEC. 22, 1835.

ENEMIES OF THE WHEAT CROP—

A STRANGE FOE AMONG THEM.

We make the following extract from a letter we have received from a highly esteemed correspondent and subscriber at Dardenne, Missouri, by which it will be seen that many crops of wheat in that section of country *last year*, were nearly destroyed by the Chinch-bug, and that the Hessian fly had at its date already made its unwelcome appearance, and was unceremoniously making its ravages on the growing crops.

The letter is dated,

Dardenne, Missouri, Nov. 2d, 1835.

"The season here has been uncommonly productive, in almost all the various crops we cultivate except *wheat*, which was almost a total failure. That crop was very materially injured by the severe frosts of last winter; some crops entirely destroyed; and where the soil was sufficiently warm and lively to sustain the plant through the vicissitudes of the winter, the crop was in all instances much injured, and in May entirely destroyed by a disease that we call *Scab in the head*. Many of our crops that escaped both these disasters, at least in good part, were completely and effectually destroyed by the *Chinch-bug*. This insect has existed here ever since I have resided in this state (16 years) but has never before done any damage to the wheat crop worth mentioning. It has heretofore been too late making its appearance to do much damage; but the present season it commenced operations some three weeks earlier than usual, and eventually blasted the hopes of many an industrious and enterprising individual.

"Query, is there any known method of preventing the ravages of this formidable little enemy of the husbandman?

"The *Hessian fly* is now committing extensive ravages in some of my neighbors' wheat fields.—Will *fresh burnt lime* sown over the crop have any good effect in checking their operations?—They are new comers here, and I should like to place myself in an attitude of defence, if I knew how to do so. If they attack my crop I shall try the lime at all hazards."

Reply by the editor of the Farmer and Gardener.

It is to be regretted that our intelligent correspondent had not been more particular in his description of the disease which he terms "*Scab in the head*," as well as of the "*Chinch-bug*," as it is almost impossible without some better guide than such terms furnish, to determine the specific character either of the disease, or insect in question. The "*Scab in the head*," we presume to be a disease in which its origin may be traced to the *seed* itself, on which no doubt the fungi, or egg, whichever it may be that generates the malady, has been deposited. This is the more generally received opinion, and if so the remedy is an obvious one. The *cause* must be destroyed in the seed, and that can be best done by submitting the grain to some severe test of ablution—to such an one as will abrupt the enemy in his retreat—less than that, will fail of answering the desired end. Whatever will effectually operate so as to produce the total destruction of the *fungi*, or egg, will, of course, preserve the crop from its *scabeous* enemy. Indeed, we take it for granted, that *smut*, the *scab*, the *Hessian fly*, and others of the most annoying enemies which prey upon this grain, should be attacked in the *seed*. In all diseases of this character, we would submit the wheat to a *thorough washing* in pure water, and rubbing with a broom, and then, in order to soften the egg, we would soak it for at least three hours in *hot-water*, after which we would submit it to a second soaking in strong lime-water for at least twelve hours, and would, just before sowing, drain the wheat and envelope the kernels in freshly powdered caustic lime, and then sow. When the wheat is a few inches high, a top-dressing of newly slaked lime, of about 5 bushels to the acre, would be found to exercise a most salutary effect. A solution of salt and water; stale chamber ley, and linseed oil, have each and all been recommended by writers, as being proper substances to compose the *soaks* for foul seed wheat; but for ourself we should rely more on thorough washings in pure cold water, soaking in *hot* water, and subsequently in lime-water. Therefore, the greatest, if not the only security is in the use of *preventive* means, and it will not be denied that the caustic property of lime is better calculated to kill any deposite of *fungi*, or eggs, than almost any other substance whatever, and in addition to this good quality, it serves as a stimulant to push vegetation forward, and thus at an early period to get the plant out of the way of those of its foes which attack it in its early state.

With respect to the *Chinch-bug*, and a remedial measure for it, we are at a loss to know what to say. Without more particular knowledge of its character and habits, it is impossible for us to determine what would be either preventive or curative. In this region of country, we have never heard of this insect as being destructive to wheat, or to any other grain; but as it has commenced its ravages in Missouri, we have no right to expect an exemption, and, therefore, feel the more solicitous to be put in possession of such specific information as will enable the agricultural community to devise some means to arrest its destructive course.

Our correspondent in speaking of the ravages of the "*Chinch-bug*," does not give us the slightest clue whereby we can establish its identity.—Does he mean the bug of that name which infests our bedsteads? Hardly—that is carnivorous in all its propensities, and we should think would make but an indifferent belligerent in a graniverous campaign. *Is* it the large black bug that sometimes annoy us by their visits to our sitting rooms after candle-light, and which the tradition of the nursery tells us is the nurse of the *Chinch* proper? This we can scarcely suppose; for we cannot conceive that an insect so solitary in its habits could by any ordinary means of procreation, so multiply as to prove a formidable destroyer of the wheat-fields of the husbandman. We hope however, that our correspondent will give us a minute description of this new enemy. In answer to the question, whether *fresh burnt lime* sown over the crop will have any good effect in checking the operations of the *Hessian fly*, we would observe, that we have no doubt it will be found serviceable. Wherever the lime may come in contact with the subtle enemy, we question not but that it will put him beyond the power of doing harm—there is, however, great difficulty in its reaching them in sufficient numbers to make the application one of great utility, so far as the destruction of the insect is concerned; and although we should place more reliance in attacking them in their embryo state—in the application of preventive remedies—we think our correspon-

dent acted wisely in using the lime. To the eastward, its application, when the plant is much farther advanced than his is now, the process he has adopted has been found efficacious. But whether it proves successful in killing the fly or not, we are sure it will have a good effect in nurturing the young grain and keeping it warm through the winter.

In our 30th number we published an article communicated by the Rev. *Henry Colman* to the *New York Farmer*, in which the propriety of the sowing of lime is sustained by the *practice* of Eastern agriculturists. The soundness of this practice, has however, been controverted by a writer who signs himself "*An agriculturist of Maryland*," and whose communication we subjoin with a view of letting both sides of the question be seen. While we agree with the writer that the best plan is to destroy the enemy in the *egg*, we must confess that we are not satisfied that sowing fresh slaked lime would not be productive of good—of much good.

[From the Chronicle.]

Mr. Editor—I have perceived a communication with the caption of "Wheat—Important discovery," originally published in the New York Farmer, and copied into the Baltimore papers.—As it treats on a subject of much importance to Farmers, I take the liberty of adverting to it, and of soliciting a small space in your columns to state my observations on it. Before I do this, however, I would remark that the important discovery, which it is asserted has been made, will be of *no importance* to farmers in this section of country. The New York communication relates *altogether to a fly which attacks the wheat in the head*, and thus destroys the prospects of the farmer. In the South, (in Maryland and Virginia,) the fly commits its depredations *previous to the month of May, and attacks the stock of the wheat* at and *near* the *roots* early in the fall and spring. It is then evident that the sprinkling of lime will be of no service in this quarter.

The Fly or Insect with which we have to contend, commences its ravages, as before observed, at and near the root of the plant, and progresses upwards until near the surface of the earth, some stocks containing from six to eight of these insects. From the manner in which the insect is placed, being on the stock between the leaves, without any perforation being visible, it is certainly a correct conclusion to arrive at, *that the insect is the product of an egg deposited on the wheat while in the head, and when the insect is in a "winged state," and that the egg vivifies when the wheat is sown, and becomes its destroyer.*—This has been corroborated in a measure by actual experiment. By examination of wheat through a miscroscope, small glutinous spots have been observed, which are considered the eggs of the fly. To destroy this egg and thus prevent it from vivifying and carrying destruction into the wheat field, is an object of so much importance to farmers, that every plausible experiment should be tried. The following simple plan has been *successfully* tried in Loudoun county, Va., but unfortunately not followed up as it should have been. The wheat was first brined and rolled in slacked lime (similar to rolling it in plaister) previous to its being sown. It was found to have the desired effect. The lime acting upon the egg destroyed its vitality, and thus prevented its growth into an insect when the wheat began to sprout.

This method is so simple, that it is worthy of trial by every farmer desirous of preserving his wheat from destruction; it may be some additional trouble, but when the advantages to be derived from it are considered, he should not be prevented from making it. It may be used also as a preventive of *smut*. Even if the views above are not correct, the rolling of the seed wheat in lime will be of great advantage, for every farmer should know that lime is the best stimulant for the growth of the plant that could be used, giving it vigour and strength from the germ.

AN AGRICULTURIST OF MARYLAND.

As the holydays will intervene before we shall have another opportunity of communing with our patrons and readers, we take this occasion to wish them a merry Christmas, and to tender them our best wishes for their health and prosperity.

We copy below from the *Lynchburg Virginian*, the address of *William Radford*, Esq., president of the New London Agricultural Society, and take pleasure in commending it to our readers.—Its perusal gave us great pleasure, and with very few exceptions we most cordially approve of the system of culture he so forcibly inculcates, and with all proper respect we will here mention those things which appear to us to be defective in good husbandry. Although Mr. Radford does not specify the distance of his corn-rows, we incline to the opinion, from the manner of his speaking of running his furrows, that he occupies too much space between his corn, an error consecrated by the custom of ages, but nevertheless an error—one that we hope to see corrected by such clear and comprehensive minds as we conceive that of Mr. Radford to be. We can hardly agree with him that lands which will produce clover is not adopted to any other grass; for so far as our observation goes, lands which will produce good crops of clover are in a state to produce any other grass whatever, and we think if he will try it he will find that clover, timothy, herds-grass, orchard-grass, and the tall-meadow oats, will all grow luxuriantly together in the same field on which clover *will grow*. With respect to the management of hogs, we believe that the farmer would find it to his interest to keep them in pens and small enclosures, where, if well fed with roots, clover, cabbages and other vegetables through the year up to fattening time, one half the number would answer the purposes of the plantation.—Upon the whole, however, the address is one of the best we have read for many years, and has that quality so commendable in compositions intended for the practical purposes of life—brevity—to commend it to the farmer.

[From the Lynchburg Virginian.]

Address of William Radford, President of the New London Agricultural Society. Published by the unanimous request of the Society, at their 2d annual meeting in November, 1835.

GENTLEMEN OF THE SOCIETY—Having, in the last address, which the presiding officer of this Society is required to deliver at the general meeting, made some general observations on the importance of an improved system of agriculture, I will now proceed to make some remarks on those branches of it, which are applicable to the improvement and cultivation of land in this part of the country. The writer of the valuable work on farming, under the title of *Arator*, has adopted the remark of a traveller "that agriculture in Virginia is in the lowest state of degradation." Although considerable improvement has taken place since the appearance of that work, still there is too much truth in the remark; and we should be fully sensible of it, in order that we may see the necessity of a change—Let any one look at the productiveness of our lands for the first four or five years after they are cleared, and then observe the decreasing crop of each successive year, and he must be convinced of the rapid deterioration of the soil. The ordinary routine of cultivation has been, to put newly cleared land, the first and second years in tobacco, the third year in wheat, the fourth in Indian corn, and the fifth in wheat; thus drawing five successive crops without any return whatever, and without giving the soil one moment's rest. The rich alluvial lands of the west may bear this severe system of depletion, but it is not suited to the high lands of eastern Virginia. It should be the object of the farmer to preserve the land in that state of fertility, in which it is found, after producing the two first crops, which may be accomplished by a proper system of tillage. In fact, the land may be gradually improved from this state, until it will yield an average crop of wheat of from 20 to 30 bushels to the acre, which would quadruple its present value. Examples of this may be found in many farms in the State, the soil of which originally was no way superior to the lands in the neighboring country. To accomplish this desirable object, the greatest industry and the best management are necessary.

In the desultory remarks, which I shall make, I will confine myself to a few of the most important subjects connected with agriculture. The first step in the cultivation and improvement of the soil is judicious ploughing. In breaking up the land for a crop of Indian corn (which should be done as early as possible in the winter, in order to subject the soil to the action of the frost,) and in summer fallowing, the use of three horses to a plough, instead of two, is attended with great advantage. Two ploughs with three horses each, will break up nearly as much land, as three ploughs with two horses each, and will do the work incomparably better—It is attended too

with the economy of saving the labor of a hand. The objection of turning up too much clay, is satisfactorily answered by Mr. Craven—that in a short time the clay is found in its proper position, at the bottom of the soil, being probably dissolved by the rains. The turning up of too much clay at an improper season of the year, or shortly before seeding, would certainly be injudicious.—Sandy soils, which have not a clay foundation, would be injured by deep ploughing; but as the great body of land, within the range of our society, has a foundation of close red clay, the objection would not hold good, except in very few cases—Deep ploughing in breaking up land is attended with the advantage of burying deeply the seeds of noxious weeds, and of enabling the farmer to perform the subsequent ploughing of a crop of corn with much greater ease. After preparing the land well for corn and planting the crop, considerable economy of labor may be practised in the early stages of the crop. Instead of ploughing up the whole field at every successive ploughing, which is the common mode, it is only necessary to run a single furrow next to the corn, when it is small, as the roots extended but a short distance; and it is unnecessary to plough the other part of the land as it is entirely clean. So in the last ploughing, the most judicious plan is to run one or two furrows next the corn with a small barshare plough, and to break up the remaining part afterwards.—This is attended with the advantage of not breaking the roots of the corn too late in the season.—Of all the methods of destroying land, the most successful is unquestionably ploughing it when it is wet. It is bad at any season, but particularly so in the spring and summer, when the land will become baked by the rays of the sun.

I will now speak, secondly, of the use of clover and gypsum or plaister of paris. The experience of more than fifteen years has convinced me, that the use of clover upon high land, without the aid of plaister, is of little or no advantage in the improvement of the soil. It will afford better pasturage; and perhaps prevent the land from washing. If closely grazed, however, it will not perform the office of holding the land together. Too high an estimate cannot be well formed of the use of plaister upon our lands. Although it acts most powerfully through the medium of clover, it will produce a very great effect upon the land without the aid of clover. A field which by excessive tillage becomes too much exhausted to produce clover, or any except the poorest grasses, will, if enclosed and plaistered, put up in the second year white clover, and weeds denoting a manifest amelioration of the soil. Land originally fertile, but so exhausted as barely to produce clover, by being put alternately in wheat and clover, with the free use of plaister, will in a few years be restored to its original fertility, besides producing good crops of wheat, if it be protected from the hoof. Any system of tillage which admits of much pasturing is defective. The only advantage of clover, as an improver, is, by affording a substance to rot upon the soil or to be turned in by the plough. If the clover be closely grazed, it would be just as well to put the plaister upon the naked land.

Thirdly, a judicious rotation of crops is absolutely necessary to effect a high state of improvement in the soil. To use clover and plaister to advantage, there should be fields or shifts enough to permit the clover to seed, and fall upon the land; in order to be turned in by the plough.—To raise a crop of corn and one of wheat in succession, it is necessary that the land should lie in clover two years in succession preceding the crop of corn, with dressings of plaister each year on the clover. So that in the first advance of improvement, it is necessary to have four fields or shifts. It would require the very best management to improve the land and to make good crops with the four shift system. As the crops of wheat would be always preceded by crops of corn, the crops of wheat would be small and uncertain. It will be necessary therefore, that there should be other land reserved, to be alternated in wheat and clover, and which may occasionally be put in corn in place of one of the regular shifts, as may best suit the arrangements of the farm. It would be desirable in addition to have a standing pasture to keep the stock from the other fields early in the spring or at improper seasons. The year preceding the crop of corn, the clover should be allowed to seed, which will afford a good coat to turn in, and will make it unnecessary to sow clover seed, when the field is put in small grain, after the crop of corn—An objection is sometimes made to the cultivation of corn, after clover, on account of the damage done to young corn by the cut worm. This objection, however, is removed, by breaking up the soil early in the winter, and subjecting the newly ploughed land to the action of the frost, which kills the worms.

Fourthly, manuring is an important branch of good husbandry. It should be the object of the farmer to carry every thing to his farm pen, that can be converted into manure, such as leaves, corn stalks, &c., which should be applied to some convenient part of the farm. The stables should be well littered and pens should be kept near them to hold the manure, which should be taken from the stables every morning when they are cleaned out.

The last subject which I shall mention is the stock necessary to be kept on a farm. It should be the object of a farmer to raise on his farm the meat necessary for the sustenance of the whole family. As hogs constitute the best food for laborers, it is necessary to pay particular attention to them. In a thickly settled neighborhood, it is the best economy for each proprietor to keep them in his own inclosures to prevent the loss of them. They should be counted regularly, and the sows and pigs should be kept apart from the other hogs, to prevent the pigs from being overlaid in bad weather. These precautions, with a moderate use of corn in the winter, and the use of clover in the summer, will be sufficient to keep them in good order. From the middle of May until frost sets in, hogs do less injury to clover than any other stock—in the winter they would destroy it by rooting it up. No stock should be put upon clover until it is in full blossom, which is generally about 15th of May. While the land is thin, as little stock as possible should be kept on the farm. When the land becomes fertilized the stock may be increased, and, if not too large, will aid in improving the soil.

Mules are more economical than horses, on account of their greater longevity, of the less food they require, and of their being less liable to be injured by rough treatment. Of all the stock which I have attempted to raise I have been less successful in raising sheep than any other. Our lands in their present state do not appear to be well adapted to any other grass than clover, which is too long and succulent for them in the summer and affords no nourishment in the winter. It is destructive to clover to put sheep on it early in the spring. As the lands become fertile there is no part of the State that I have seen, which is better suited to the raising and improvement of cattle than the country below the Blue Ridge and bordering on it. A laudable desire seems to be manifested to improve the breed of cattle by the best crosses—Durham, Devon, and Hereford stock of the purest blood have been lately introduced by several public spirited gentlemen, which will greatly improve the product of the dairy, and I trust become profitable to the owners. May we not indulge the hope, gentlemen, that this part of the State, blest with health, and with a soil susceptible of the highest state of improvement, may become like a garden, beautiful and teeming with abundance?

MIXED CULTIVATION OF POTATOES.

We are indebted to a subscriber in Washington county, Virginia, for the subjoined communication detailing a series of experiments in the raising of potatoes and corn as a crop in common. We thank him for his favor; it is just such an essay as is most valuable to agriculturists generally. Practical results are always preferable to speculation and theory, because nothing being left to uncertainty, the husbandman is encouraged to go on and follow the example of his successful neighbor. We could wish that others would tread in the footsteps of our Washington correspondent, and give us statements of their experiments, the interests of the cultivators of the soil would be thereby greatly promoted.

To the Editor of the Farmer & Gardener:

Sir—I have noticed in the Farmer & Gardener of the 17th inst. a description of a sample of some fine potatoes presented to you, and also quotations of other samples for inspection, the weight of the heaviest of which is 5 lbs. I would state for the information of farmers, that I have been a potato raiser for many years; and, perhaps, it may be beneficial to others engaged in their culture to understand my method of raising as also the quantity I have raised for several years. In 1830, I made an experiment on a new plan in planting a part of my crop: planting *corn* and *potatoes* on the same land. I planted my corn six feet east and west, and a row of potatoes between each alternate row, and when I gathered my crop, I was so well pleased with the plan, that I have planted in the same mode ever since, and have succeeded in always producing good crops, except one year, which was a failure from a severe drought. In 1831, I had sixteen acres in corn at nine feet distance, and potatoes in the centre of the corn rows, my crop was fine: on the sixteen acres the product of potatoes was 2500 bushels, corn 25½ bushels to the acre; the

potatoes, taken altogether, the largest I have ever raised: one weighed 5 pounds 9 ounces, a number of others, 4 pounds and upwards; and, I have no doubt but there could have been from 80 to 100 bushels taken from my crop that year, that would have averaged 3 pounds. I have come to the conclusion, that one-fourth, if not more, can be raised from the same quantity of seed; they grow much better than in a patch of entire potatoes. The potato is a vegetable that grows best in a cool, moist climate, and I am of opinion the corn crop is but very little diminished in the yield, while the potato crop is much promoted in the product in planting the two crops on the same land. I believe it a great advantage, as in cultivating the crops thus, but little time is lost. I throw a furrow open and drop the potato on the plan of planting corn, and cover them with the plough, at the time the corn should be ploughed the first time. The most labor in raising the potato in this way, is in taking them up in the fall and putting them in the cellar. In 1832 my crop was valuable, it yielded 2400 bushels raised the same way. In 1833 I had but a light crop, as before stated owing to a severe drought; in 1834, my crop was 2900 bushels, the present crop was 2000. The potato is a profitable crop. I find them from experience in feeding, good food for horses cattle, hogs, and sheep. The hog is most benefitted to have them cooked and mashed, and meal mixed among them. It is an easy matter and but little expense to have a *steam* establishment to cook from 1 to 20 bushels at the same time. I have one that 8 bushels can be cooked in, in two hours. The plan is simple and cheap. Any tolerable handy farmer can fix one with a trifling expense. Corn in the ears, or shelled, cut straw, or any kind of food that it may be necessary to have cooked, can be prepared in the same establishment without any alterations being necessary in the machine. It may not be uninteresting to state a few circumstances as to the particulars of a part of my crop. In 1834, from 8 acres which I had in corn and potatoes, (it being a part of the land I had in the mixed crop) I realised an average of the two crops, corn and potatoes, rating the latter at 20 cents per bushel and the corn at 40 cents, of $52 per acre, besides pumpkins and beans: of pumpkins I gathered 6 waggon loads.

I noticed the description of a large Radish in the essay on vegetables. A radish which grew in my garden this season, weighed 12 pounds with the tops and the small roots trimmed off.

W. B.

Washington County, Va.

THE DURHAM CATTLE.

A most valuable correspondent in Kentucky, gives the following as the fashionable points of Durham cattle, as insisted upon by breeders in that state. From his great experience in breeding, and excellent judgment, we have no doubt their publication will be serviceable to our readers:

"The most popular color is red, and the next roan, though I would not care much about colour if an animal suited me in other respects, and as respects pedigree, nothing but the best would suit me. I should then want the animal as large as I could get him, to be finely formed and have fine bones; but I should prefer a small animal well formed, to a large coarse animal.

"I will here state what form and shape is most prized here—the head, horn and neck should be small; the shoulder should not rise up too abruptly from the neck on each side, nor should the animal be too thick through the points of the shoulder; the brisket should be low, broad, and project well before the fore legs; the ribs should be sufficiently barrelled to give ample capacity to the lungs, with no depression or hollow behind the shoulders, and no sharpness on the back behind the shoulders—the back should be straight and broad, the hips should be wide and on a level with the back and tail; the hip bones should be large and well rounded, and the distance from the hip to the tail should be as long as possible; the tail should be set on upon a level with the back, and should be large at top and taper down so as to be very small just above the bush; between the hips and the tail on each side the space should be well filled up, so as to give a regular rounded shape, and there should not be too much narrowness in the thighs when viewed from behind, (the fashion in Kentucky is to run back nearly square from the hips to the back part of the thighs;) the thighs should be long and fleshy down to the hock, and nearly perpendicular as the animal stands, from the root of the tail to the hock; the flanks should be deep, and the legs should be flat and the bones small and short. So far, we have been pleased with the longest bodied animals we could get.

"I do not expect perfection in any animal, but should like to get one as near it as possible. I particularly want a bull to be fine in the back just behind the shoulders, and in the ribs behind the shoulders."

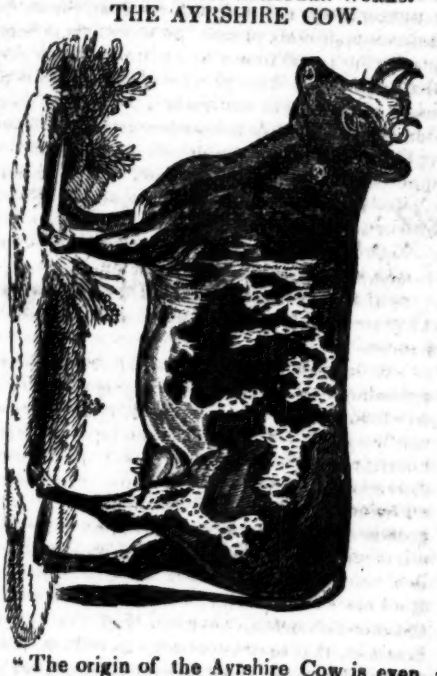
WINTERING OF SHEEP.

The December number of the New York Farmer contains a very interesting communication by "Farmer C." containing a notice of the farming establishment of Mr. *Henry D. Grove*, of Rennsselaer county, New York, from which we take pleasure in extracting that part of it which relates to the manner in which that gentleman manages his sheep during the winter. The writer says:

"I very much approve of Mr. Grove's winter management of sheep, which it may not be amiss to notice in this place; he has a large barn built on a hill side descending to the east; the upper part of the building is for keeping the hay, and the basement serves as a shed or stable, for it may be closed by doors, or they may remain open at pleasure. At one end is a large, warm and commodious cellar, where potatoes, turnips, &c. are kept for winter feeding; these are cut in a trough containing 3 or 4 bushels, with an instrument not unlike two spades, the edges crossing each other at right angles, and fitted to a handle about 4 feet long, with which a man will cut 2 or 3 bushels per minute. His racks are light, convenient, and simple, consisting of three small poles, the one at bottom receiving the rounds of each side and one pole on each side at top, the rounds two feet long and ¾ of an inch in diameter, and the top-poles separate about two feet, then a light manger about two feet wide and one foot from the ground; the rack is set firm lengthwise in the centre of the manger, which catches all that falls from either side of the rack, and is an excellent plan to feed grain, potatoes, &c. It is the opinion of Mr. Grove, that potatoes are preferable to turnips for sheep, because they are a much more substantial food, and will never cause sheep to scour if they are regularly salted and otherwise properly fed. He also considers it highly necessary that sheep should be regularly bedded with straw. His racks and manger where his sheep are fed, are kept constantly under cover. Mr. Grove keeps a regular record of births, deaths, sales, and every circumstance relative to his flock is there exactly recorded; every sheep is numbered by marking the ear, and the number is strictly recorded, and many peculiarities highly interesting I might state."

GLEANINGS FROM EUROPEAN WORKS.

THE AYRSHIRE COW.



"The origin of the Ayrshire Cow is even at the present day a matter of dispute; all that is certainly known about her is, that a century ago there was no such breed in Cunningham, or Ayrshire, or Scotland, and the present improved stock is supposed to be a cross with some foreign stock. It is said to have been the Holderness that helped to produce the improved Cunningham cattle. The cattle, from which by crosses with the native breed the present improved Ayrshire arose, were first introduced on Lord Marchmont's estates in Berwickshire. They were soon afterwards carried to the farms of the same nobleman at Somberg in Kyle.

The breed has much improved since Mr. Aiton described it, and is short in the leg, the neck a little thicker at the shoulder, but finely shaped towards the head; the horns smaller than those of the Highlanders, but clear and smooth, point-

ing forwards, and turning upwards, and tapering to a point. They are deep in the carcass, but not round and ample, and especially not so in the loins and haunches. Some, however, have suspected, and not without reason, that an attention to the shape and beauty, and an attempt to produce fat and sleeky cattle, which may be admired at the show, has a tendency to improve what is only their second point—their quality as grazing cattle,—and that at the hazard or the certainty of diminishing their value as milkers. We agree with Mr. Aiton, that the excellency of a dairy cow is estimated by the quantity and the quality of her milk. The quantity yielded by the Ayrshire cow is, considering her size, very great. Five gallons daily, for two or three months after calving, may be considered as not more than an average quantity. Three gallons daily will be given for the next three months, and one gallon and a half during the succeeding four months. The Ayrshire cow yielding 5 gallons of milk per day will afford 34 ounces=2 lb. 2 oz. of butter. Mr. Aiton says: To sum up all in one sentence, I now repeat that hundreds and thousands of the best Scotch dairy cows, when they are in their best condition and *well fed*, yield at the rate of 2000 Scotch pints of milk (1000 gallons, a Scotch pint being equal to our half gallon) in one year; that in general, from 7½ to 8 pints (3¾ to 4 gallons) of their milk will yield a pound of butter county weight, (1¼ lb. averdupois;) that 55 pints (27½ gallons) of their milk will produce one stone and a half of imperial weight of full milk cheese."

Mr. *Rankine*, another distinguished English authority, says:

"I have seen 18 pints of milk (9 gallons) drawn from a cow in one day. I had a three year old quey that once for six weeks after calving gave 13 pints a day. These, however, are rare instances.

The fattening properties of the Ayrshire cattle we believe to be a little exaggerated. They will feed kindly and profitably, and their meat will be good. They will fatten on farms and in districts where others would not be made to thrive at all, except partly or principally supported by artificial food. They unite, perhaps, to a greater degree than any other breed, the supposed incompatible properties of yielding a great deal of milk and beef. It is, however, as Mr. Rankine well observes, on the inferior soil and the moist climate of Ayrshire and the West of Scotland, that their superiority as milkers is most remarkable. On their natural food of poor quality they give milk abundantly and long, and often until within a few days of calving; but when they are moved to richer pasture, their constitution changes, and they convert their food more into beef. In their own country a cow of a fleshy make, and which seldom proves a good milker, may be easily raised to 40 or 50 stones, and bullocks of three years old are brought to weigh from 50 to 60 stones. There is a lurking tendency about them to fatten, which good pasture will bring to light. They are not favorites with the butchers as the *fifth*-quarter does not weigh well in them. Their feet is mingled with the flesh rather than separated in the form of tallow; yet this would give a more beautiful appearance to the meat, and should enhance its price to the consumer."

[From the Farmer's Register.]

STATEMENT OF TILLAGE AND PRODUCT OF CORN, ON STAUNTON BOTTOM LAND.

I have been requested by two or three of my friends, who saw a small field of corn growing the present year on my premises, to give an account of its produce, to the public, through the columns of the Farmer's Register. I have measured and penned the corn that grew on three acres of the above mentioned field, and will confine my remarks to the three acres, which were the best in the field. I do not recollect the precise time when this corn was planted. I commenced planting about the time my neighbors did, and the field was planted several days later than my first planting; so that I conclude it was neither late nor early planting. The ground it grew on was the best Staunton river bottom, which had been cleared upwards of a century. In the year 1833 it was not cultivated, and produced a fine coat of vegetable litter which was suffered to rot (ungrazed) on the land. The succeeding year, 1834, it was cultivated in tobacco, and in 1835 planted in corn. The spring ploughing was a bed upon two shovel-plough furrows for half of the three acres, and the other half was bedded on two coulter furrows. The bedding was done by two-horse dagon ploughs, as deep as practicable. I generally prepare my flat land with three-horse ploughs, but this field had been well broken, under the previous tobacco crop, and the two-horse ploughs effected as deep ploughing as a three-horse plough, on a naked fallow. The beds were about four feet apart—rather under that distance. The corn was planted eighteen inches apart in the bed, (in the step, as it is usually termed,) and two stalks were left in a place after weeding. At weeding, the beds were thrown down by a dagon plough, and a deep coulter furrow run on either side of the young corn—as near to it as practicable. The second and last working was done by a single-horse dagon plough, the rows being too near to admit two horses in a breast. The produce of the three acres was fifty-five barrels of sound corn and several barrels of rotten, that were not measured—making upwards of eighteen barrels of sound corn to the acre.

My principal object in making the above communication is, to direct the attention of corn planters to the subject of thick planting on rich, moist land. There is much land in this vicinity as fertile as the land above mentioned, and yet, the product to the acre seldom exceeds nine or ten barrels.

The three acres were accurately measured, and, to prevent misapprehension, it may be proper to add, that ten bushels of corn in the ear were allowed to the barrel. Two rows were permitted to stand with only one stalk in the hill: these were gathered and measured with two adjoining rows with two stalks in the hill; the latter measured between a fourth and a fifth more than the former, thus conclusively determining the advantage of thick planting. The two rows with only one stalk in the hill were thinned at weeding time.

The little experience I have in farming and planting, has convinced me of the great importance of making the land we cultivate rich—"cultivate less land, and make it rich," should be the motto of every planter, without an exception, of my acquaintance.

The corn that grew on the three acres was made at a fourth (at least) of the expense of any equal quantity of the balance of my crop—the corn in the same field with the three acres excepted. In the first place, when a small crop is cultivated, so much time may be devoted to the first preparation of the field, that but two workings are necessary. Less land and less labor is required to produce the same result. I observed in getting up the corn, (it was hauled on the stalks to the farm-pen,) that the carts were filled more rapidly than they were in the poorer fields, owing to the fact of the thick corn being more concentrated. The cutter would generally at one stroke take down two stalks; the laborers that picked up the stalks have less walking to do; the fodder and tops are also gathered with less expense.

The ratio of increase of the number of ears, as the distance between the corn stalks is diminished, is greater than one would, at first thought, suppose. For instance, if one plants his corn three feet apart every way, he has 4,840 corn hills in the acre; if he just doubles the distance and plants six feet apart, he has only 1,210 corn hills in the acre: increasing the distance by the multiplier two, diminishes the number of hills by the divisor four. So that, if the ears of corn were as large, and the same number of stalks in the hill, an acre of land that would produce five barrels when the hills were six feet apart, would produce twenty barrels when the hills were three feet apart. This fact at once shows the great loss from not planting corn as thick as the land can bear it. The advocate for thin planting would say, that "what is gained in number by thick planting, is lost in the size of the ear:" but in the two cases put above, the ear must be four times as small in the thick acre in order to reduce the quantity to an equality with the product of the thinly planted acre. Nothing is more common (when instituting a comparison between two fields of corn) than the remark, "that one field is better than the other *because* the ears of corn are larger," and, "that the corn in the small eared field was planted too thick, *because*, the ears might be larger by thin re-planting;" whereas, in nine cases out of ten, if the corn in the two fields was brought to the measuring tub, the thickly set field would be found to yield the most corn.

The size of the ears that grew on the three acres above mentioned, was so large, that I am convinced the corn was not thick enough, and have in mind to try still thicker planting next spring. The experiment will of course be confined to low moist land: as the want of moisture would as effectually check the growth of extraordinary thick corn, as the want of fertility.

I will add, in conclusion, that a good cart load of pumpkins grew on the three acres, and that Mr. John R. Elam witnessed the corn accurately measured.

G. W. READ.

Charlotte County, Nov. 5, 1835.

ON STEAMING CORN-STALKS AS A FOOD FOR CATTLE.

To the Editor of the Southern Agriculturist.

Sir,—In looking over, with much pleasure,

the VIIth volume of the "*Agriculturist*," in No. 8, I discover, some remarks on the subject of ploughing in corn-stalks, for the purpose of adding to the fertility of the soil, or, in other words, of making manure of them.

Observation, reflection and reading a good deal on the subject of the corn-stalk, induced me some time ago, to endeavor to turn this part of the refuse of the corn-crop to a better account, than suffering it to remain in the field, or to be ploughed into the soil; and I view myself as not only having succeeded in that object, but also having produced, by my mode of appropriating them, a superior mass of excellent manure, through their agency, and greatly superior to what any given quantity of them alone, could possibly produce.

After all the discussions on the subject of manures that I have seen, and there are many of them truly valuable; after all the discoveries of substances that may be applied in fertilizing the soil, with great effect; and we are certainly much indebted to science for the discovery of many singularly valuable, I believe it will be readily admitted, that we must rely on the animal world for a great and valuable portion of such matter, as will communicate fertility to a soil, of which it has been exhausted by cultivation, or which it never had.

The certain and valuable effect of animal excrement on other matter, in preparing it for acting as a fertilizer of soil, cannot be lost sight of, and that in accumulating composts, one of the happiest modes of recruiting, or preserving land, it certainly forms an admirable basis.

A variety of considerations, appear to me, to induce and urge the procurement of animal agency in forming manure, in the form of compost, and so conclusive with me are those considerations, that they leave me with my own consent, no other course than to keep all the stock I can procure and support well. I know of no part of the United States, in which good cattle will not command a fair price, either in the form of work-steers, beef-cattle, or milch-cows; of mutton, lamb, and wool, the same may be said. If this is the case, it then follows, that it will be the interest of the farmer to turn to the support of cattle, sheep, &c. every thing that can be rationally turned to that account, and to keep all that he can support well. Another argument is derived from the fact, that to enjoy a comfortable existence, it is a great insurance, to have a plentiful supply of stock, of different kinds, especially of the provision kinds.

Another consideration arises from the existence of the fact, that there are so many vegetable matters, as also animal, to be found in every section of the country, that with the aid of animal excrement, can be so readily turned into an enriching compost manure. This last consideration applies more especially to leaves, weeds, and swamp mud; and it cannot be forgotten, that one of the best vegetable dry provisions, for the supply of stock, is the most easily procured, in every part of our country, and in any desired quantity, viz. rye-hay, and it must be equally recollected, that in the production of this resource for supporting cattle, an ameliator of the soil is employed, and one that can be followed by another crop in the same year, produced almost without labour, equally ameliorating, and if judiciously husbanded, extremely valuable, viz. the pea.

If the advocates of ploughing in the corn-stalk, are wanting in reality to fertilize the soil, through their agency, why not let it be done in the manner best calculated to produce the greatest effect, and the most lasting results? On this theory I have acted, in appropriating the refuse of corn, to a use, and especially, with an eye to the accumulation of manure, for with me, manure is every thing.

By a perusal of one of the most valuable agricultural communications, that our annals of agriculture can produce, from the pen of the distinguished farmer, Jesse Buel, Esq. of Albany, (see his papers on the cultivation and saving on the corn crop,) it will be seen, that a crop of corn can be, and is saved by him without loss of any kind by cutting the corn down (when at a certain stage of maturity) at the ground; and at the same time, saving and curing the stalk, blade, shuck and corn, while each contains the largest portion of nutritious qualities that can be secured, consistent with a saving of the grain, and with great saving of labour, and in a way much more analagous to the process of nature, than the mode usually adopted; and that the nutritive properties of each, are saved in a much greater degree than by the usual mode, cannot even be a matter of doubt. This course is now pursued successfully throughout many parts of the United States. Our southern climate enables us, as I have sufficiently proved, from repeated trials, to succeed still better than more northerly. This mode of saving the corn-crop, as one of the steps towards the valuable appropriation of the stalk, in the way of food for stock, I have adopted and pursue; and I am so satisfied with the many good consequences growing out of it, that I could not possibly relinquish it for any other.

After my corn is housed, the stalk, blades and ears of corn, still together, I take wet weather, which forbids doing out-door work, to shuck the corn, the individual taking out the corn from the husk, also strips off the blades, if the last is needed, laying the stalks down regularly beside him, until he has an armful stripped, when he deposites them as regularly, in an adjoining room near to the cutting box, in which they are reduced to pieces of about one inch in length.

This cut stuff is placed in a steaming apparatus, perfectly simple and convenient in its construction, and economical in its cost, capable of steaming about twenty bushels at a time. After the cut stuff is sufficiently operated upon, it is taken from the apparatus and placed in a large trough. In some adjoining casks, made for the purpose, and standing near, but about a foot higher than the trough, I put warm water with as much Indian corn or rye meal, as will produce the vinous fermentation, as if going to distill. This, by a little management, I have always ready, and when it discovers a little of the acetous, I permit the liquid to pass into the trough of the cut stuff, and cover it, (which is held down by a tight moveable lid,) by means of a spigot fixed in the casks, and a light moveable trough, such as is found at distilleries, to convey water.

In the course of the night the preparation becomes saturated with the fermented liquor, and in the morning lifted out in baskets, taking no more of the liquor than is absorbed by the stalks, it is fed away to cows, steers, and young cattle. Any person at all acquainted with distillation, will readily see that there is not only no preparation known more agreeable to horned cattle, but equally none known to possess more fattening qualities. Every part of this preparation is eat with avidity by the cattle, and even mules, and some horses eat it with seeming gratification. Salt is moderately used. I have no doubt that if the cut stalks, &c. were put in the fermenting mass, just from the steaming apparatus, and as the last is mixed and put to work, and the whole suffered to go through the process of fermentation together, that the product would be still better, and equally as agreeable to the animal.

It will now be readily anticipated, that taking this course with the stalks, &c. of a corn crop, an acre must yield a prodigious quantity of food, and it does, for on no food need cattle thrive faster, if they get a sufficiency; it appears in the words of the old adage to "stick by the ribs." That the stalk, alone, of corn, possesses at one period, a large proportion of nutritious matter, common observation testifies. It would be perfectly irrational and contrary to all analogy to suppose, that the whole nutritive quality left the stalk on the arrival of the grain to maturity. Repeated experiment has settled that there still remains, after that period, much of the saccharine principle secreted in the dry stalk, and that the process required to bring it forward, is alone wanting to produce it, viz. fermentation. This process is carried on in the stomach of the animal; and the result is nutrition. But in passing the refuse of corn through the stomach of animals, it not only supports them, but obtains through their agency the real "leaven of fermentation," for masses of vegetable matter that cannot be employed for their support, but in which the earth around me abounds, and most of which are my pests, and the opponents of my industry, and if not destroyed, its successful destroyer, viz. weeds and leaves. The first and the last form littering of the finest quality, cool in summer and dry and warm in winter. By employing them in this way, I add to the enjoyment of the animal that adds to mine, and by employing them in this way, through the agency of the animal, I prepare and secure an insurance for the most prolific return of the earth to my labours.

I will just add, that the stalks, &c. cut up and saturated with the fermented liquor without steaming, will be consumed with avidity by cattle, but I need no argument to convince me that the wood part of the stalk is better prepared for the digestive organs of the animal, by the process of steaming, as also the capacity of the cut stuff increased to yield nutrition.

From actual experiment, I am assured, that I can carry through our winters, well, four head of horned cattle on the stalks from an acre of good corn, permitting the cattle to go abroad when the weather admits. My standing pens are good ones, with shelters on them for bad weather. By littering with leaves, dry weeds, &c. I find myself amply paid for my corn-stalks on the arrival of the spring.

CINCINNATUS.

Woodlands, Alabama, Aug. 5, 1835.

[From the Farmer's Register.]

ON THE DIFFERENT KINDS OF COTTON.

Fairfield District, S. C. Oct. 3, 1835.

The cotton plant forms a subject of peculiar interest, both to the southern planter, and to the botanist: and every thing relating to its history and character cannot fail to excite a lively attention. The articles on this subject in your late valuable numbers, from Mr. Spadding and Mr. Croom, have been read with much pleasure, and we should be much gratified to see the investigation continued. Although these gentlemen have shed much light upon the native localities of this plant, the period and manner of its introduction into this country, and the botanical characters of the different species, yet, we apprehend, the subject is not yet thoroughly understood. Its botanical history especially—the several species, and the botanical characters of each, we shrewdly suspect are imperfectly known, and, consequently, the botanical description are very unsatisfactory. Mr. Croom has given the characters of all the species of cotton, as furnished by the Encyclopædia of Plants. But upon examination, this botanical account is found to be imperfect. To render my remarks more clear and intelligible, I will beg leave to transcribe the botanical descriptions given by Mr. Croom from the Encyclopædia. According to this, there are but four species of the cotton plant, as follows:

"1. Gossypium herbaceum, (greenseed cotton.) Leaves 5 lobed, 1 gland beneath: lobes round mucronate, invol. serrate, stem, smooth."*

"2. G. hirsutum, (Mexican and petit gulf.)—Upper leaves undivided cordate, lower 3-5 lobed, with 1 gland beneath: branches and petioles hirsute."

"3. G. barbadense, (sea island cotton.) Upper leaves 3 lobed; lower 5 lobed, with 3 glands beneath: stem smoothish."

"4. G. arboreum, (tree cotton.) Leaves 5 lobed polenate; upper 3 lobed, with 1 gland beneath, Inv. tern. Cal. with 3 glands at base."

Eight or ten years ago I substituted what is called the Mexican cotton in the place of the green seed: and for the last three or four years I have purchased annually, as many bushels of what is sold in the Charleston market as petit gulf seed, as would furnish seed sufficient for the succeeding crop, so that my whole crop now consists of what we consider the petit gulf kind, with perhaps, some remaining plants of the kind introduced some years ago under the name of Mexican. Upon careful examination, of my own crop, and those of many other gentlemen who plant the petit gulf seed, I find the botanical characters to be as follows.

Upper leaves 5 lobed; lobes acute mucronate: lower 3 lobed, mucronate, 0 glands, stem, branches, petioles and peduncles hirsute. Perianth 3 leaved, gashed-toothed.

Now it is manifest, that this description does not apply to either of the species above described by Mr. Croom. It does not apply to the g. hirsutum (Mexican or petit gulf,) because, although it is hirsute, yet the upper leaves are not undivided cordate, but 5 lobed acuminate mucronate, whilst the lower leaves are 3 lobed, and not 3-5 lobed with 1 gland beneath.

It is equally manifest, that the description of what we plant as petit gulf, does not apply to either of the other three species. Is the kind, then, which we plant as petit gulf cotton, a fifth species? Or is it a hybrid? Be this as it may, we have found it so superior in point of productiveness, to the green seed, and it has so entirely superseded the latter, that I have not been able to find a single plant of the green seed kind growing in the neighborhood, with which to make a comparison as to its botanical characters.

That the plant which we cultivate as the Mexican, and that which we cultivate as the petit gulf is one and the same species, is manifest enough. The only difference we can detect is in the bearing and productiveness. Owing, perhaps, to its being a variety, or perhaps to the seed being fresh from the Mississippi, the petit gulf kind is earlier and more productive, at any rate for two or three years, than any kind we have every yet planted.

Upon the whole, what are we to make of the description of the g. hirsutum, given by Mr. C. as the Mexican or petit gulf, from the Encyclopædia of Plants? We plant no cotton of this description, I think, in this state. Of course, the question arises, have we been deceived in the seed imported as the petit gulf seed—or have the botanists been mistaken in their description of it? A further examination of the subject is worthy of the attention of bontanists; and I would hope ere long to see the several species of cotton settled with as much precision as those of any other plant. This, I am sure you will perceive, is not a mere idle curiosity. The practical utility to the planter of being able to determine the species with certainty by a view of the growing plant, will strike you at once, as very important in several respects. And the botanist who may reduce the subject to accuracy and certainty will not only render a valuable contribution to the science of botany, but he will confer an important favor upon cotton planters and deserve well of his country.

JAMES DAVIS.

*Mr. Eaton in his Manual of Botany, describes the g. herbaceum as a biennial. Certainly not so in this country.

NORTON'S WINE.

A gentleman of this city to whom a few bottles of *Norton's Wine* had been sent, presented us on Saturday with a bottle of it. It was made by Mr. *D. N. Norton*, of Magnolia near *Richmond*, Va., in 1833, from a variety of Grape produced by that gentleman from the seed, and favorably known as *Norton's Seedling*. It is without any addition of sugar or spirit of any kind, and is a most luscious article; its flavor is high, racy, and decidedly pleasant, though not less peculiar, forming in itself a very agreeable combination of those which distinguish the Burgundy, Malmsey Madeira, and Malaga wines.—The color is deep, and presents to the eye much of the appearance of Port Wine, though it is entirely free from its astringent quality. It is not our purpose to say, that this wine is as good or better than *any* imported; but we do, in all candor affirm, that we consider it a better article than one half of the newfangled liquors which we receive from Europe bearing the name of wine. As a light table drink we have not tasted any thing which, with the addition of water, makes a more delicious and exhilirating beverage.

The vine from which this liquor was made, is, we are assured, a great bearer, is perfectly hardy, having withstood the intense cold of last winter "unblemished," and bore a heavy crop of grapes the past season; thus demonstrating its capacity to overcome one of the most formidable objections to our engaging extensively in the business of vine-growers.

We think Mr. Norton deserves great credit for the intelligence and perseverance with which he has prosecuted the culture of the vine, and we sincerely hope his patriotic exertions will be met in a spirit commensurate with the benefits he has conferred upon the interests of agriculture, both individually and nationally; and if it would not be imposing too much upon his good nature, we would ask him to favor us with an account of the method by which he made so excellent a wine.

DESTRUCTIVE FIRES.

A fire occurred at Cheraw, South Carolina, on the afternoon of Wednesday, the 8th inst. which destroyed from 175,000 to 200,000 dollars' worth of property; of which but 75,000 dollars were insured. So heavy a loss upon a small town like this, is, indeed, a heavy infliction.

On the night of *Tuesday*, the 15th instant, a most awful and appalling fire occurred at New York, sweeping every thing in its way until it had laid in ruins 674 buildings, besides immense quantities of merchandize, household furniture, and other property. The following brief statement from the New York Courier will give our distant readers a pretty correct idea of the amount of destruction. The loss has been variously stated at from 15 to 30 millions of dollars, we sincerely hope the first amount may prove the most correct. We view this not as a sectional loss, but as one of national import, for every American was necessarily proud of the great commercial emporium of his country.

From the Courier and Enquirer of Friday morning.

END OF THE FIRE.

The following will be found a tolerable accurate statement of the number of Houses and Stores now levelled with the ground.

26 on Water street.
79 on Pearl street.
3 on South street.
76 on Water street.
80 on Front street.
16 on Hanover street.
62 on Exchange Place.
31 on Exchange street.
44 on William street.
33 on Old Slip.
16 on Coentries Slip.
60 on Stone street.
3 on Hanover square.
23 on Beaver street.
20 on Governeur's lane.
10 on Jones' lane.
20 on Cuyler's alley.
38 on Mill street.

674

Six hundred and seventy-four tenements. By far the greater part in the occupancy of our largest shipping and wholesale dry goods merchants and filled with the richest products of every portion of the

Globe. How estimate the immense loss sustained or the fatal consequences to the general prosperity?

Of the Merchants' Exchange nothing but its marble walls remain standing.

Three or four vessels lying at the wharves on South street were slightly injured in their yards and rigging. They were all hauled out into the river as soon as practicable.

We believe the progress of the destructive element is now nearly stayed.

A detachment of marines from the Navy Yard, under Lieutenant Reynolds, and of sailors, under Captain Mix of the Navy, arrived on the spot at two o'clock in the morning. They rendered most valuable service. The gunpowder brought from the magazine at Red Hook was partly under their charge.

As we cannot state the loss of life with precision, we abstain from giving surmises. The cold during the whole time was excessive, thermometer at Zero.

It may be easily supposed that this greatly paralyzed the exertions of the Firemen. We saw one who sank under its effects and who was with difficulty resuscitated.

Two companies, with their engines, arrived here from Newark, and rendered very material assistance.

The passengers in the steam boat coming down the river, saw the flames from the highlands, forty-five miles distant, and such was the violence of the gale, during the prevalence of the fire, that burning embers were carried across the East river to Brooklyn, and set fire to the roof of a house there, which was, however, speedily extinguished.

Last night, strong bodies of Cavalry and volunteer Infantry were patrolling the streets near the fire and preserved perfect order, and we trust prevented any further serious depredations.

Whatever can be done constitutionally to relieve the sufferers, in both cases, should be done, and that quickly.

There have been advices from *London* to the 31st October, but nothing from France. The affairs of the queen of Spain appear to be improving under the ministry of M. Mendozabel, the whole of the Junta having sent in their adhesion.

CONTENTS OF THIS NUMBER

Enemies of the wheat crop—a strange foe among them—Christmas holidays—Mr. Radford's address—mixed cultivation of Potatoes—Points of the Durham cattle as preferred in Kentucky—wintering of sheep—portrait and description of the Ayrshire cow—tillage and product of corn on Staunton bottom land, by G. W. Read—value of steaming corn stalks for food for cattle—*Norton's wine*—Destructive fires at Cheraw and New York—Foreign advices—essay on the different kinds of cotton—prices current, bank note table, advertisements, &c.

THE SILK MANUAL.

JUST published and for sale by *Sinclair & Moore* and *Robt. Sinclair, Jr.*, at the *Maryland Agricultural Repository, Light near Pratt street, Baltimore*, a complete *Manual of the Silk Culture*, in which plain instructions are laid down for the *culture of the Mulberry, the feeding of the Silk worms*, management of the cocoons, reeling, spinning and dying of the Silk. In fine, it is a perfect Manual, and comprises every department of the business. The rules are arranged in so plain and methodical a manner that every one can understand them, and by a very few hours attention become master of the business. It is clearly demonstrated in this Manual, that largely upwards of $500 may be netted from an acre in the Culture; and it is a singular fact connected with the Mulberry as adapted to the making of Silk, that poor dry, sandy, or gravelly land suits it best, the fabric made from worms fed on leaves raised on such soil, being greatly superior in elasticity and sleekness of glow to those grown on rich grounds.

Price—one copy, 50 cents.

Liberal discount made to the trade.

BALTIMORER PODUCE MARKET.

☞ *These Prices are carefully corrected every* MONDAY.

	PER.	FROM	TO
BEANS, white field,	bushel.	2 50	—
CATTLE, on the hoof,	100lbs.	5 00	6 00
CORN, yellow,	bushel.	new 75a80	
White,	"	do 75a80	
COTTON, Virginia,	pound.	18¼	—
North Carolina,	"	—	—
Upland,	"	18¼	20
FEATHERS,	pound.	37	40
FLAXSEED,	bushel.	1 25	1 37½
FLOUR & MEAL—Best wh. wh't fam.	barrel.	8 00	8 50
Do. do. baker's	"	7 50	8 00
Do. do. Superfine,	"	7 25	—
Super How. st. in good de'd	"	7 00	—
" " wagon price,	"	6 75	—
City Mills, extra,	"	6 75	7 00
Do.	"	6 75	6 87
Susquehanna, firm & scarce	"	6 75	6 87
Rye,	"	5 00	5 25
Kiln-dried Meal, in hhds.	hhd.	19 50	20 00
do. in bbls.	bbl.	4 37	4 50
GRASS SEEDS, red Clover,	bushel.	5 00	5 75
Timothy (herds of the north)	"	2 75	3 25
Orchard,	"	2 25	3 00
Tall meadow Oat,	"	2 00	2 50
Herds, or red top,	"	1 00	1 25
HAY, in bulk,	ton.	—	15 00
HEMP, country, dew rotted,	pound.	6	7
" water rotted,	"	7	8
HOGS, on the hoof,	100lb.	7 00	7 50
Slaughtered,	"	7 00	7 50
HOPS—first sort,	pound.	12½	—
second,	"	10	—
refuse,	"	8	—
LIME,	bushel.	33	35
MUSTARD SEED, Domestic,	"	5 00	6 00
OATS,	"	42	45
PEAS, red eye,	bushel.	—	— —
Black eye,	"	—	1 25
Lady,	"	—	—
PLASTER PARIS, in the stone,	ton.	—	3 50
Ground,	barrel.	1 25	—
PALMA CHRISTA BEAN,	bushel.	2 00	—
RAGS,	pound.	3	4
RYE,	bushel.	88	90
Susquehannah,	"	none	—
TOBACCO, crop, common,	100 lbs	5 00	5 50
" brown and red,	"	5 00	7 00
" fine red,	"	7 00	9 00
" wrappery, suitable for segars,	"	5 00	10 00
" yellow and red,	"	6 00	8 00
" good yellow,	"	8 00	12 90
" fine yellow,	"	12 00	16 00
Seconds, as in quality,	"	4 75	5 00
" ground leaf,	"	5 00	8 00
Virginia,	"	6 00	—
Rappahannock,	"	—	— —
Kentucky,	"	8 00	14 00
WHEAT, white,	bushel.	1 40	1 45
Red,	"	1 35	1 40
WHISKEY, 1st pf. in bbls.	gallon.	37	37½
" in hhds.	"	33½	—
" wagon price,	"	30	bbls.
WAGON FREIGHTS, to Pittsburgh,	100 lbs	1 50	— —
To Wheeling,	"	1 75	—
		washed.	*unwash*
WOOL, Prime & Saxon Fleeces,	pound.	55 *to* 68	30 *to* 32
Full Merino,	"	48 55	28 30
Three fourths Merino,	"	45 48	26 28
One half do.	"	40 45	24 26
Common & one fourth Meri.	"	36 40	22 24
Pulled,	"	38 40	23 24

2,000 MORUS MULTICAULIS.

FOR SALE by *R. Sinclair*, Senr., at *Clairmont Nursery*, 2,000 Morus Multicaulis trees (the Chinese Mulberry.) These trees are between 7 and 8 feet high, and if planted out this fall might be fed from to advantage next spring. Persons desirous of purchasing, would do well to make early application. Their superiority for feeding silk worms is universally admitted.

nov 24 3t

BANK NTOE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

U. S. Bank,	par
Branch at Baltimore,	do
Other Branches	do
MARYLAND.	
Banks in Baltimore,	par
Hagerstown,	¼a
Frederick,	do
Westminster,	do
Farmers' Bank of Mary'd,	do
Do. payable at Easton,	do
Salisbury, 5 per ct. dis.	
Cumberland,	¼a
Millington,	do
DISTRICT.	
Washington, Georgetown, Alexandria, Banks,	½.
PENNSYLVANIA.	
Philadelphia,	¼a
Chambersburg,	¼a
Gettysburg	do
Pittsburg,	1¼a2
York,	¼a
Other Pennsylvania Bks.	1¼a2
Delaware [under $5]	3a4
Do. [over 5]	¼a½
Michigan Banks,	5a
Canadian do.	5a
VIRGINIA.	
Farmers Bank of Virginia	¼a½
Bank of Virginia,	do
Branch at Fredericksburg	do
Petersburg,	do
Norfolk,	do
Winchester,	do
Lynchburg,	do
Danville,	do
Bank of the Valley,	do
Branch at Romney,	½
Do. Charlestown,	do
Do. Leesburg,	do
Wheeling Banks,	1¼a2
Ohio Banks, generally	2¼a3
New Jersey Banks gen.	1¼a2
New York City,	¼a½
New York State,	2¼a3
Massachusetts,	2a2½
Connecticut,	2a2½
New Hampshire,	2a2½
Maine,	2a2½
Rhode Island,	2a2½
North Carolina,	2¼a3
South Carolina,	2¼a3
Georgia,	3a3½
New Orleans.	¼

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,	barrel.	—	—
BACON, hams, new, Balt. cured	pound.	11	—
Shoulders, do.	"	10	—
Middlings, do.	"	8½	9
Assorted, country,	"	7	8
BUTTER, printed, in lbs. & half lbs.	"	18½	25
Roll,	"	20	—
CIDER,	barrel.	—	—
CALVES, three to six weeks old	each.	3 00	6 00
COWS, new milch,	"	17 00	30 00
Dry,	"	8 00	12 00
CORN MEAL, for family use,	100lbs.	1 75	1 87
CHOP RYE,	"	1 75	1 87
EGGS,	dozen.	—	—
FISH, Shad, No. 1, Susquehanna,	barrel.	7 75	—
No. 2,	"	6 75	—
Herrings, salted, No. 1,	"	4 00	4 12½
Mackerel, No. 3,	"	5 75	—
Cod, salted,	cwt.	3 00	35 0
LARD,	pound.	10	10

RUFFLE OATS,

FOr seed, may be had at the Maryland Agricultural Repository, Light street, Baltimore, by application to

Dec. 8 JAMES MOORE.

GRIST MILLS.

THe subscriber has for sale at the Maryland Agricultural Repository, a few of those effective Grist Mills, so much approved of by gentlemen who have tried them. They are adapted to horse-power, and with ease will manufacture 3 bushels of grain into the most beautiful lively meal in an hour.

JAMES MOORE.

Dec. 8. 4t.

STOCK OF IMPROVED SHORT HORN DURHAMS.

THE *editor* of the *Farmer and Gardener, Baltimore*, has for sale two 7-8 and four 3-4 bred cows, 2 *full bred* and *seven* 7-8 bred bulls of the improved short-horn breed. They are all fine animals whether regard be had to their milking or fattening propensities. Their *pedigrees are indisputable, all tracing to the British Herd book.* They will be sold low for cash, their excellence being considered.—To any person, company, or society, who may want *several, a great bargain* would be given.

☞ Letters addressed to the editor upon this subject, must be *post paid.* nov 10 4t